

REMARKS

Claims 1 – 11 and 16 are pending in this application.

A Declaration Of Ofer Sneh Regarding Claim Features And Deposition Speed is attached. This Declaration is provided in response to the Examiner’s rejection of the Supplemental Declaration of Ofer Sneh, Ph.D., on the grounds that it did not provide evidence that attributed the commercial success to the feature (*sic*) of the claim in the instant application. This rejection is not understood, as the commercial success was specifically attributed to the features of the present claims and, in particular, to the fact that the features permit a much faster ALD process. The connection between the specific features claimed and the speed is already given in the specification, and perhaps this was missed by the Examiner. The Declaration points to the places in the specification where this relationship of the features of the claims to the speed of the process is described.

CLAIM REJECTIONS – 35 USC §103

Claims 1, 3 – 5, 7 – 11, and 16 have been rejected under 35 USC 103(a) as being unpatentable over Bhatnagar et al. (US Patent No. 6,391,146, hereinafter “the Bhatnagar Patent”), in view of Halsey et al. (US Patent No. 6,663,025, hereinafter “the Halsey Patent”) and Heinze (US Patent No. 2,028,603, hereinafter “the Heinze Patent”). This rejection is respectfully traversed.

Claims 1, 2, 5, and 6 have been rejected under the Bhatnagar Patent in view of the Halsey Patent and the Heinze Patent (with different mapping than above). This rejection is respectfully traversed.

Claims 1, 3 – 5, 7 – 11, and 16 have been rejected under 35 USC 103(a) as being unpatentable over the Bhatnagar Patent, in view of Strang (US Patent Application Publication No. 2003/0227258, hereinafter “the Strang Publication”) and the Heinze Patent. This rejection is respectfully traversed.

Claims 1, 2, 5, and 6 have been rejected under the Bhatnagar Patent in view of the Strang Publication and the Heinze Patent (with different mapping than above). This rejection is respectfully traversed.

Every one of these rejections fails for the same reason. The Bhatnagar Patent shows the prior art system using throttle valves, not flow restriction elements (FRE). In each rejection, the Examiner finds an application that in some part he asserts is equivalent to an FRE and substitutes this part for the throttle valve. For example, he asserts that the diffuser in the Halsey Patent is a restrictor and replaces the throttle valve in the Bhatnagar Patent with the diffuser. Likewise the screen of the Heinze Patent and the adjustable orifice plate of the Strang Publication are posited by the Examiner as obvious replacements for the throttle valves. However, nothing in any reference suggests that a diffuser, a screen, or an adjustable orifice plate would make a suitable substitute for a throttle valve. We have already discussed the diffuser and screen in previous Office Action responses. While the adjustable orifice plate comes closest to something that adjusts flow, no one skilled in the art would replace a throttle valve with this plate. The plates in the Strang Publication are relatively massive compared to a throttle valve, move on roller bearings, and are driven by stepper motors and gears. See Paragraph [0052] and FIG. 6. This would slow the pressure adjustment down to even much slower than a throttle valve. No one skilled in the art would consider this orifice plate as an obvious substitute for a throttle valve.

The Supplemental Declaration filed with the previous response clearly shows that the National Science Foundation, the US Navy, and several well-known companies have supported the invention *as claimed*. We emphasize *as claimed* because each paragraph that described the success specifically ties the success to the claims. Moreover, an ALD deposition speed that is increased by a factor of a thousand is also asserted as a reason for the success, and, as shown by the enclosed Declaration, the specification itself ties this speed to the claimed features. It would seem that the NSF, the US Navy, and the well-known companies were foolish since, according to the Examiner, it was obvious to make a system with a diffuser, a screen, or an orifice plate substituting for the throttle valve; and in making these substitutions they would have the invention as claimed without any need for Dr. Sneh.

Application No. 10/563,519
Amendment dated April 22, 2010
Reply to Office Action of January 26, 2010

Docket No.: 020008.0112PTUS

In view of the above remarks and the attached Declaration, Applicant believes the pending application is in condition for allowance. Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-1848, under Order No. 020008.0112PTUS from which the undersigned is authorized to draw.

Respectfully submitted,
PATTON BOGGS LLP

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By: /Carl A. Forest/
Carl A. Forest
Registration No.: 28,494
(303) 894-6114
(303) 894-9239 (Fax)
Attorney for Applicant

Customer No. 24283